

REMARKS

Claims 14-30 and 36-72 stand pending in this application.

Claims 14-17, 19-30, 36, 38, 39 and 45-72 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,234,447 (Kaster) in view of US 5,830,222 (Makower). Applicants have amended independent claims 14, 30, 45, 50, 55 and 58 to further define the claimed invention. Applicants submit that the claims, as amended, are allowable over the stated combination. For example, claim 14 now includes the step of “ejecting at least a portion of each of the tissue securing elements from the plurality of openings ***by applying a force along the longitudinal axis to the respective second ends of each of the plurality of tissue securing elements.***” Support for the amendments may be found at least at paragraph 0069 of the US Publication No. 2001/0001826, which describes the step of ejecting tissue securing element(s) from the anastomosis device, with reference to the appropriate figures:

[0069] The applier 52 is actuated by depressing the end 88 of the plunger 64, which may be performed by grasping extensions 90 of a collar 92 with two fingers and pressing the end 88 with the thumb. This results in the configuration shown in FIGS. 22A and 22B, wherein the plunger 64 has moved forward to a point where it is flush with the end surface 60 of the body portion 56. The plunger 64 comprises a tubular body with extensions 94 having a shape complementary to the slots 86 in the body portion 56. As the plunger 64 moves forward, the extensions 94 slide forward within the slots 86. The extensions 94 contact the sharpened points 84 of the hooks 80 to force the hooks 80 out the slots 86. The hooks 80 are then free to assume their first configuration (shown in phantom in FIG. 18) which results in the closed ends 82 of the hooks turning outward and clamping against the interior surface of the second tissue structure T2 (as shown in FIG. 24).

Such a step is not described or suggested by either Kaster or Makower. Kaster describes tool for forming a staple. As described at column 6, line 17 of Kaster, the staple is mounted at the distal end of the device and is held in place when a mandrel is disposed within the core unit:

A staple (12) (FIG. 14) may be positioned on the forward end (24) of the core unit (14) such that the connecting unit (46) of the staple (12) becomes lodged in the staple holding unit (28) of the core unit (14) with the vessel and interior wall engaging members (43) disposed forwardly and the exterior wall engaging members (44) disposed rearwardly. The mandrel (16) may then be fully disposed through the core unit (14). This positioning of the mandrel (16) will urge the fingers (26) of the core unit (14) slightly outward, and this will cause the staple (12) to be firmly held in place.

The staple is positioned to attach two blood vessels and is formed in place at the distal end of the device. After the staple is fully formed, the mandrel is removed from the device to allow the staple to be released from the distal end. The stapling tool is then withdrawn from the staple. See the text at column 7, lines 8-14:

Following this, the mandrel (16) may be gently withdrawn from the stapling tool (10) to allow the fingers (26) of the core unit (14) to retract inwardly somewhat and thereby release their hold on the staple (12). The stapling tool (10) may then be gently withdrawn as a whole, leaving the blood vessel (51) firmly connected to the wall (53) in a stapled anastomosis.

Thus, Kaster does not teach or suggest at least the step of “ejecting at least a portion of each of the tissue securing elements from the plurality of openings *by applying a force along the longitudinal axis to the respective second ends of each of the plurality of tissue securing elements.*”

As to Makower, it also fails to teach or suggest such a step. As is shown in Figures 9-9C and described in the specification at column 7, lines 13-53, Makower provides a sheath 96

having staples 95 disposed within the sheath. The sheath is pulled back proximally to expose the staples thereby permitting the staples to assume their unconstrained configuration.

As a result, because neither Kaster nor Makower teach the claimed ejecting step, Applicants submit that the claimed inventions are allowable over the combination. Further, because Kaster describes a particular type of device used to form staples, simply replacing the staples of Kaster with those described in Makower would not provide a workable method. Applicants seek allowance of the pending claims.

Respectfully submitted,

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Dated: June 9, 2008